



Somerset Public Schools

Developing Effective and Cost-Effective Secondary Staffing and Schedules

JANUARY 2017



**DISTRICT
MANAGEMENT
COUNCIL**

There is an opportunity at the secondary level to more efficiently staff and schedule classes and repurpose existing resources.

Executive Summary

DRAFT

- Through critically reviewing staffing and scheduling, Somerset Public Schools (SPS) can unlock significant efficiencies at the high school, with much smaller opportunities at the middle school
- Through employing multiple staffing and scheduling strategies, the district could potentially repurpose FTE over an extended period of time by...
 - **Staffing classes efficiently** (*high school*: 3.0 FTE short-term, up to 10.0 FTE over time; *middle school*: up to 2.8 FTE through partial FTE savings across departments)
 - **Monitoring low enrollment courses** (*high school*: up to 2.6 FTE)
 - **Reviewing the teacher work day** (*high school*: up to 13.6 FTE; *middle school*: up to 6.0 FTE)
 - **Reviewing time dedicated to non-teaching time** (*high school*: up to 1.1 FTE)
 - *Note: Certain strategies are more complex, time-intensive, and require strong communication and engagement to succeed*
- The district can also consider revising its course offerings and schedule structure at the secondary level to provide students with optimal opportunities
 - Somerset Berkley Regional High School (SBRHS) can review course offerings to ensure that there is an equitable distribution of rigorous courses across core departments
 - Certain scheduling decisions at Somerset Middle School (SMS) could provide students with opportunities for intervention and enrichment, or increased world language instruction

Agenda

DMC's approach to staffing and scheduling

High School Findings

Middle School Findings

Next Steps

Somerset has an opportunity to further refine scheduling practices to improve teaching and learning.

DMC's Scheduling Philosophy

DRAFT

- ☑ It is possible for school districts to increase both staff time with students and time with colleagues without increasing costs
- ☑ In order to accomplish this, school districts need thoughtful staffing and scheduling that:
 - Reflect district goals
 - Prioritize needs
 - Thoughtfully and proactively resolve tradeoffs inherent to designing thoughtful schedules
- ☑ Effective schedules require specific scheduling guidelines and a data-driven approach
- ☑ Effective staffing and scheduling are the linchpin to other student centered and cost effective schedules in the school
- ☑ Every district is different; culture and context matter

Through strategically utilizing resources, secondary schools can build schedules that can prioritize district goals and student outcomes.

DMC's Focus for Secondary Scheduling

ILLUSTRATIVE

Strong secondary schedules should provide...

Significant focus on time spent in core instruction.

Extra time for struggling students.

Extra time with content strong teachers.

Access to rigorous courses.

Partnered with district and building leaders, DMC conducted a diagnostic analyzing staffing and scheduling at the secondary level.

Work Steps

DRAFT

Key Steps	Outcomes
1 Perform In-Depth Diagnostic	<ul style="list-style-type: none">a) Assess strengths and opportunities of current staffing and scheduling processesb) Gather information on course offerings and how schools are utilizing their time
2 Conduct Staffing and Scheduling Analysis	<ul style="list-style-type: none">a) Identify opportunities for increased efficiency in staffing and course offeringsb) Highlight strategic scheduling options to provide student choice, access rigorous courses, and opportunities for extra helpc) Create a series of staffing options based upon course enrollmentd) Analyze, review and discuss alternatives and tradeoffs with central office and building leaders
3 Prioritize, Analyze and Devise Plan for Implementation	<ul style="list-style-type: none">a) DMC will work with the district to review the opportunities for scheduling and staffing, and plan for implementation

Agenda

DMC's approach to staffing and scheduling

High School Findings

Middle School Findings

Next Steps

There are five strategic levers Somerset Public Schools can use to address potential staffing and scheduling opportunities at the high school.

Overview of Strategic Levers & Impact

DRAFT

Strategic Levers	Potential Opportunities	Considerations
A Regularly set staffing and sections based on enrollment	10.0 FTE	<ul style="list-style-type: none"> Schedule-building and department expectations
B Manage low-enrollment courses	2.6 FTE	<ul style="list-style-type: none"> Course guidebook adjustments
C Review teacher-utilization guidelines	13.6 FTE	<ul style="list-style-type: none"> Contract negotiations
D Review time dedicated to content coordinators and co-teaching	1.1 FTE	<ul style="list-style-type: none"> Small opportunity for savings
E Review distribution and availability of rigorous courses	<i>Increase opportunity for students to enroll in rigorous courses</i>	<ul style="list-style-type: none"> Resource shifts

Closely managing class sizes provides opportunity to repurpose resources while keeping average class size well below a target of 25 students.

Impact of Adjusting Class Sizes

DRAFT


A

<i>Scenarios:</i>	<i>Current</i>	
Department	Staffed (FTE)	Average Class Size
Total:	75.9	18.4 (Target 25)
<i>Incremental FTE Savings (0.5 & above)</i>		

English	11.6	17.5
Math	11.8	18.8
Science	12.5	18.7
Social Studies	11.0	20.4
WL	8.0	17.0
Art	4.6	13.9
Business	3.0	16.7
Health / PE	6.0	19.8
Music	2.2	21.9
Technology	5.2	18.0

<i>Option 1</i>		<i>Option 2</i>	
Required (FTE)	Average Class Size	Required (FTE)	Average Class Size
72.6	19.0	64.8	21.4
-3.0	Target: 25	-10.0	Target: 25

11.1	18.4	9.2	22.2
10.4	20.6	9.8	21.9
11.9	19.8	10.5	22.5
11.2	19.7	10.4	21.2
7.4	18.4	6.2	21.9
4.2	15.4	4.0	16.0
2.5	18.4	2.4	19.4
5.7	20.1	5.0	23.6
2.9	16.0	2.3	19.8
5.3	18.6	4.9	19.9

 Represents departments with potential for greater than 0.5 FTE of savings.
 Note: No specific class size target was indicated, DMC set 25 students as the standard.

Despite using strategies to manage low-enrollment courses, there are 14 courses with less than 10 students.

Low-Enrollment Courses

DRAFT

B

Course	Number of Sections	Enrollment	Required FTE
INTRO TO MUSIC	1	10	0.2
HIST. BROADWAY (1) & HIST. BROADWAY (2) & HIST. BROADWAY (3)	1	10	0.2
CALCULUS (1)	1	10	0.2
SPANISH IV (2)	1	9	0.2
PORTUGUESE IV (1) & PORTUGUESE IV (2)	1	9	0.2
ACCOUNTING I TP (1)	1	9	0.2
ART THRU TIME	1	9	0.1
PHYSICS C MECH AP	1	8	0.3
ADV GRAPHIC ENG (1) & ADV GRAPHIC ENG (2)	1	8	0.2
ADV.DRAWING (1) & ADV.DRAWING (2) & ADV.DRAWING (3)	1	7	0.2
LAW (1)	1	7	0.2
FRENCH IV (1) & FRENCH IV (2)	1	6	0.2
THEATER TECHNIQ.	1	6	0.1
AP STUDIO ART 3P/C	1	2	0.1
Total:	14	110	2.6

Strategies for offering low-enrollment courses:

- **Combine related low-enrollment courses** (SBRHS has employed this strategy with classes like advanced graphic engineering, advanced drawing 1, 2 & 3)
- **Reduce the frequency** of course offering
- **Stagger offerings** for typically low-enrollment courses every other year



No strategy reduces a student's ability to take a course that is currently offered

Other districts operate with high school schedules that utilize more of teachers' days for time spent with students than at SBRHS.

Variability in Teacher Utilization

DRAFT

C

Alternative High School Schedules	Teaching Load	Planning Period(s)	Duty Period	Utilization
6 Period / 8 Day Cycle* (rotating)*	3 – 4	1 – 2	1	63%
Schedule structures from other districts				
8 Periods	6	1	1	75%
7 Periods	5	1	1	71%
6 Periods	4	1	1	66%
5 Blocks	4	1	0	80%

- DMC has worked with a number of high schools that employ a variety of schedule structures:

- 6 – 8 period days
- Rotating schedules
- Block schedules

Other, common schedules lead to greater teacher utilization without significant impact to a teacher's day

*The high school operates on an 8-day cycle with 8 periods overall, and 6 periods each day.

Alternatively, within the existing schedule structure, adjusting the teacher work day could lead to more typical teacher utilization.

Breakdown of Teacher Schedule per Cycle

DRAFT

C

Current Work Day

Teaching Load per Cycle: 1 FTE	Periods per cycle	% Utilization	Current FTE
Course Load	30	62.5%	47.5
Duties	6	12.5%	9.5
Personal Prep	10	20.8%	15.8
Common Planning	2	4.2%	3.2
Total:	48	100%	~76

- One potential schedule would increase teaching periods to 36 within the current cycle
- Remaining periods per cycle would be distributed among traditional non-teaching responsibilities
- Must account for contract requirements at the district



Potential Work Day

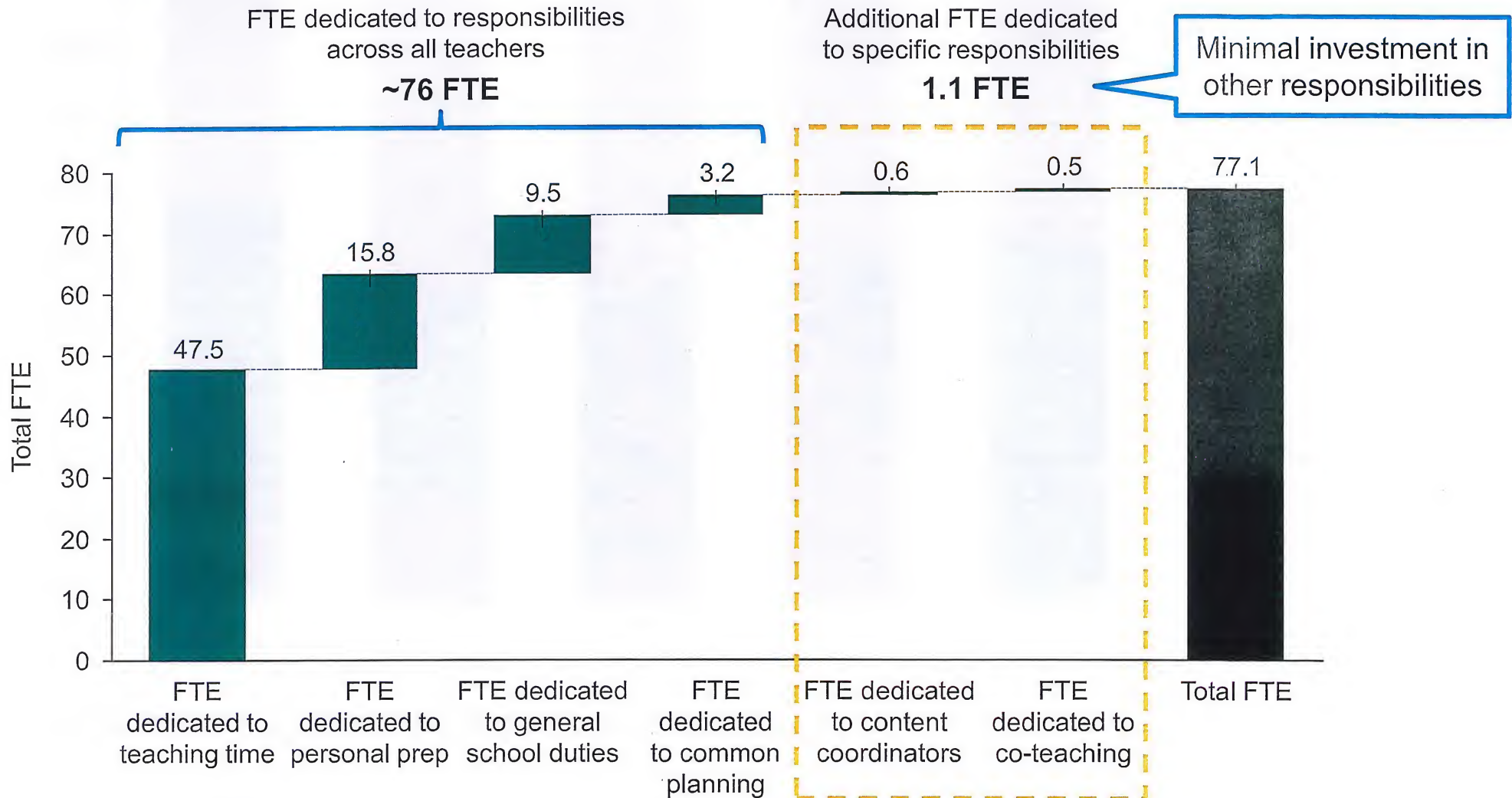
Teaching Load per Cycle: 1 FTE	Current (periods per cycle)	% Utilization	Required FTE
Course Load	36	75%	47.5
Duties	0	0%	0
Personal Prep	10	20.8%	13.0
Common Planning	2	4.2%	2.6
Total:	48	100%	63.1

Eliminating some duty periods may require reinvestment of resources to accomplish necessary duties

The high school invests approximately 1 FTE in additional responsibilities beyond the typical teacher's load.

Investment in Content Coordinators and Co-Teaching

D DRAFT

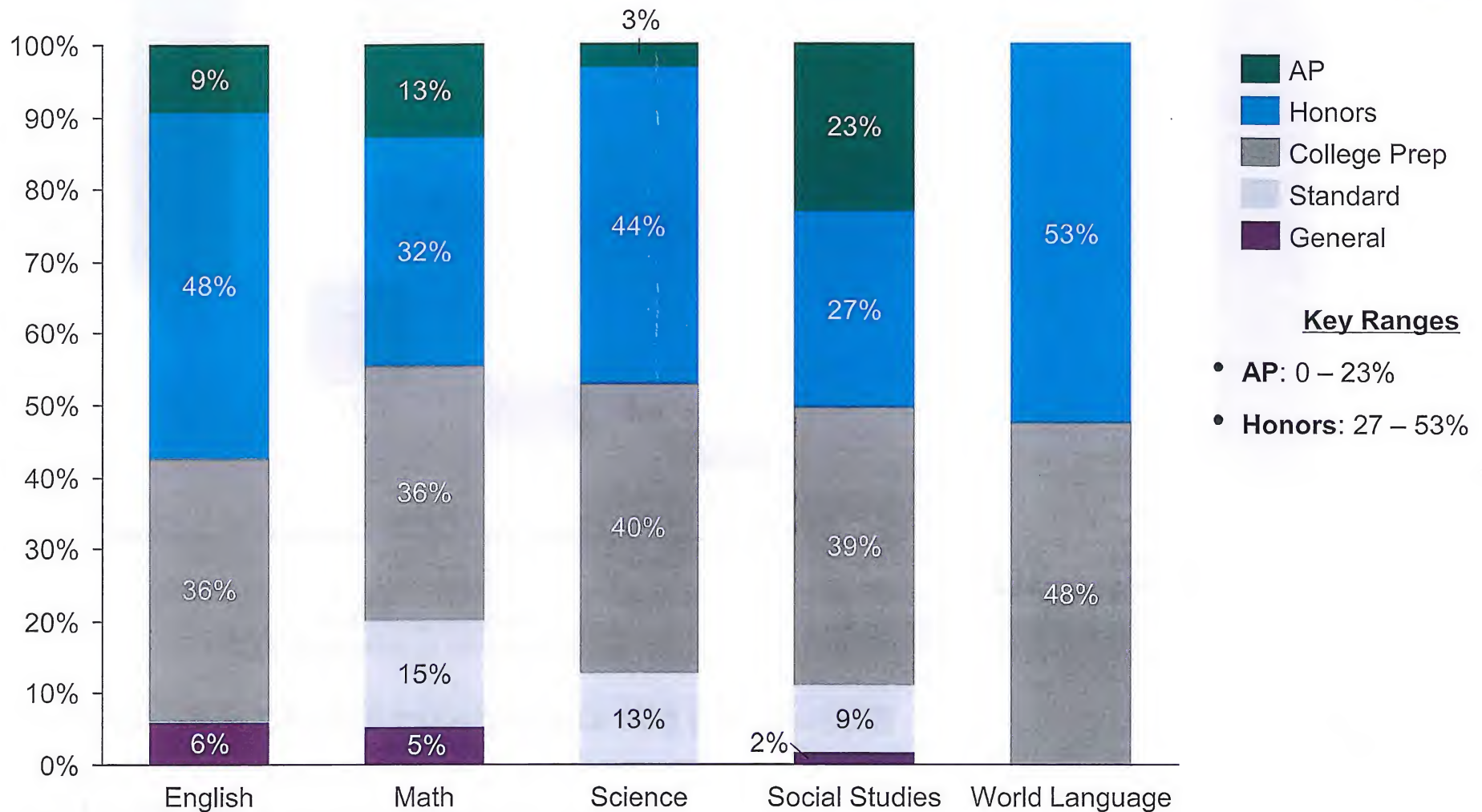


There is a drastic difference in student enrollment in AP and honors courses across departments.

Distribution of Courses by Department and Level

DRAFT

E



Agenda

DMC's approach to staffing and scheduling

High School Findings

Middle School Findings

Next Steps

Next Steps

- Consider timeline and depth for implementation of each opportunity
 - Discuss potential near-term adjustments for 2017-2018 school year
 - Design communication and workplan for implementing adjustments to sections/schedule
- Determine focus areas for long-term staffing and scheduling strategy
- Analyze potential schedule structure alternatives for the middle and high school
 - Involve scheduling committees in discussion and development of potential schedule alternatives

Q&A?

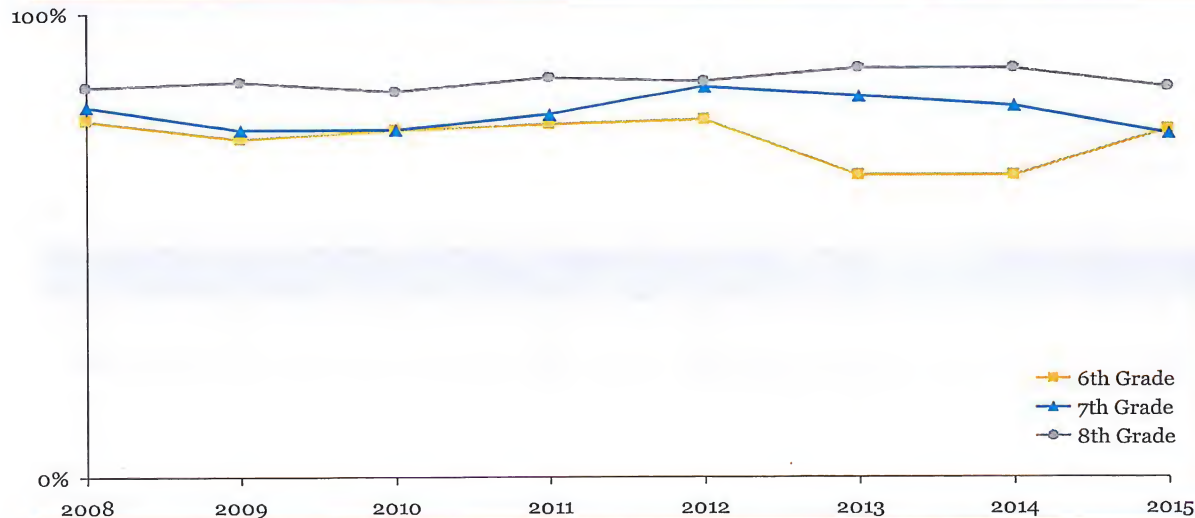
APPENDIX

Since implementing the model for extra time in math and ELA at the middle school level, proficiency in math has increased while ELA has not.

Achievement Data: Proficient & Above Students

EXAMPLE

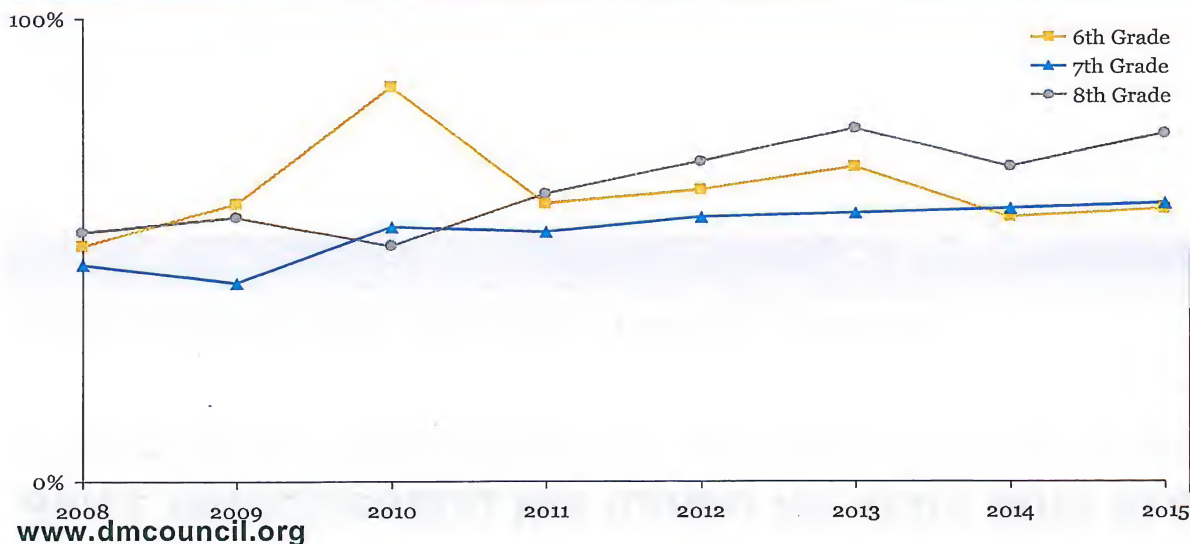
ELA



- In 6 – 8th grade ELA, the percent of proficient and above students has remained constant or decreased between 2 – 6% since 2008

Grade	2008	2015
6 th Grade	77%	75%
7 th Grade	80%	74%
8 th Grade	84%	84%

Math



- In 6 – 8th grade math, the percent of proficient and above students has increased between 8 – 21% since 2008

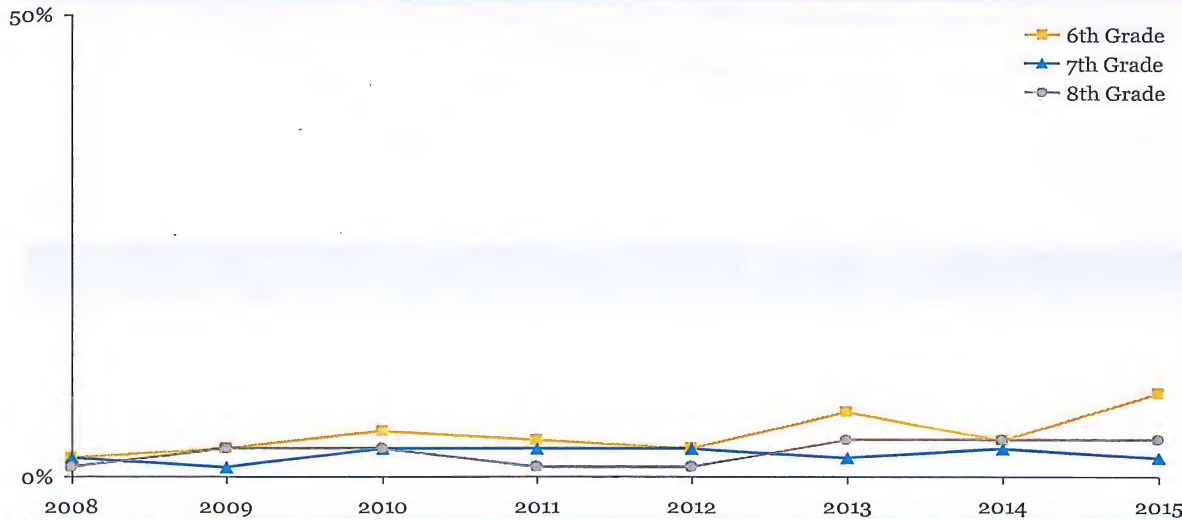
Grade	2008	2015
6 th Grade	51%	59%
7 th Grade	47%	60%
8 th Grade	54%	75%

Since implementing the model for extra time in math and ELA at the middle school level, the impact on warning/failing students has been mixed.

Achievement Data: Warning / Failing Students

EXAMPLE

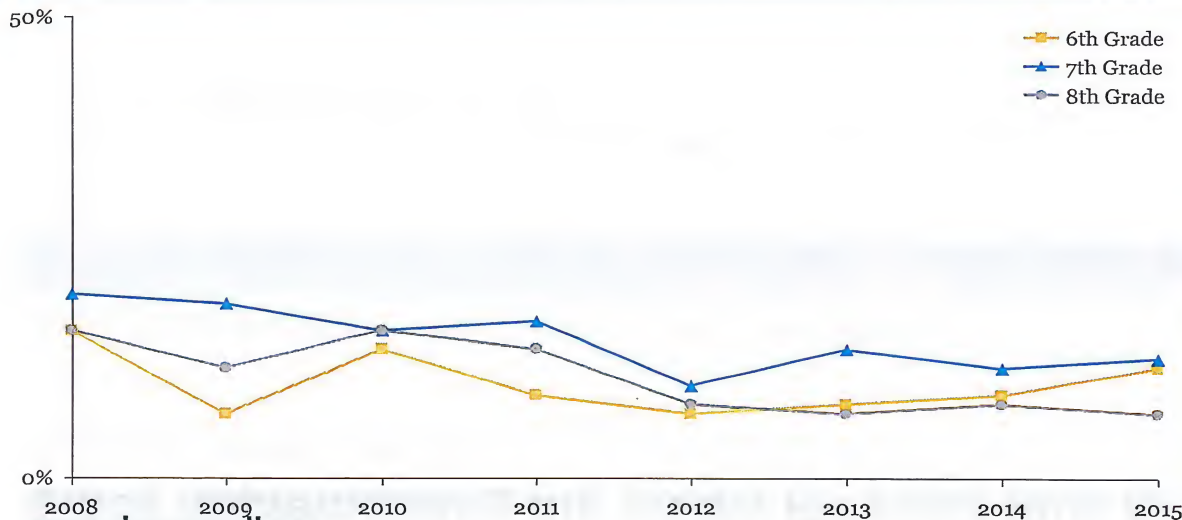
ELA



- In 6 – 8th grade ELA, the percent of warning/failing students has remained constant or increased between 3 – 7% since 2008

Grade	2008	2015
6 th Grade	2%	9%
7 th Grade	2%	2%
8 th Grade	1%	4%

Math



- In 6 – 8th grade math, the percent of warning/failing students has dropped between 4 – 7% since 2008

Grade	2008	2015
6 th Grade	16%	12%
7 th Grade	20%	13%
8 th Grade	16%	7%



If you have any comments or questions about the contents of this document, please contact Peter Riley at the District Management Council:

- **Tel:** (877) DMC-3500
- **Email:** priley@dmcouncil.org
- **Fax:** (617) 491-5266
- **Web:** dmcouncil.org
- **Mail:** 133 Federal Street, Boston, MA 02110